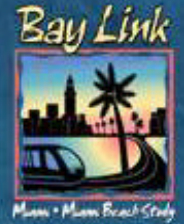


# *Miami-Miami Beach Transportation Corridor Study*



## **BAY LINK** **Presentation to the** **Miami-Dade** **Metropolitan Planning Organization**

**July 29, 2004**



# Today's Purpose

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- Review Bay Link Project and Purpose
- Review the Project Development Process
- Present the Refined LPA
- Review Next Steps

# What Is Bay Link?

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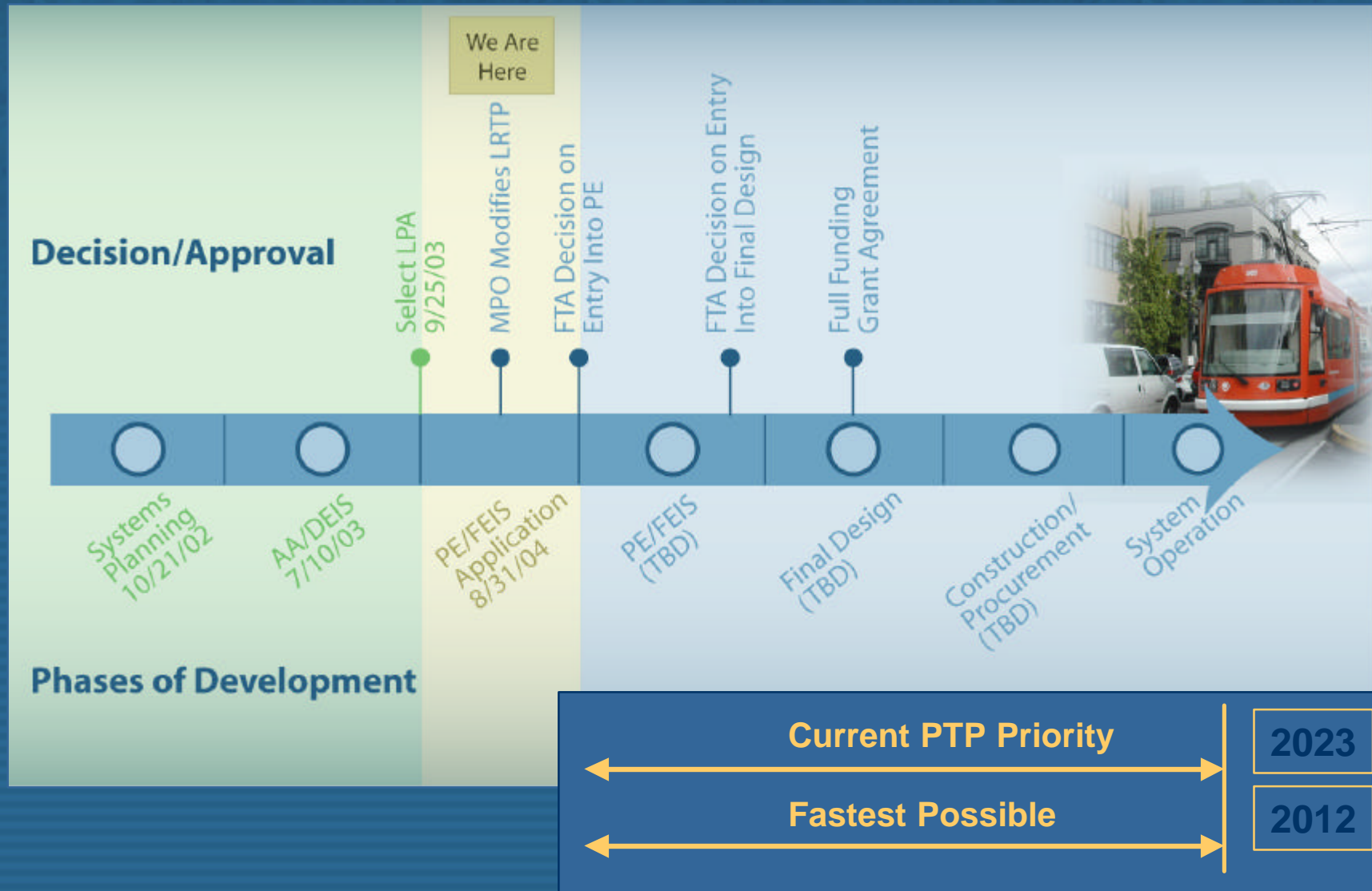


## **Streetcar Line Providing a Regional Transit Connection Between Miami and Miami Beach:**

- **Maximize tremendous transit investment to date with reliable high capacity regional connection.**
- **Provide support for current and future development and connect major public/private investment in region's economic core.**
- **Provide circulation in core areas.**
- **Serve as connection for future extensions.**



# Federal Transit Administration: Program Development Process



# Phase 2 Products

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## **Refine LPA Definition** (Complete 7/30/04)

- Physical Alignment/Station Locations
- Operating Plan
- Ridership Projections
- Capital and Operations and Maintenance Cost
- Traffic Analysis

## **PE/FEIS Request** (Submit 8/12/04)

- PE/FEIS Request Letter
- New Starts Report
- Project Management Plan
- PE/FEIS Scope of Work

## **Extensive Public Involvement** (Continuous Over Phase 2)

# Phase 2 Outreach Summary



- 4 “Form & Fit” Meetings
- 18 Station Area Planning Meetings
- Presentation to DDA
- 2 Bay Link Advisory Committee Meetings
- Presentation to City of Miami Commission
- Presentation to City of Miami Beach Commission
- 12 “Focus Group” Presentations
- Presentations to MPO Board and Subcommittees





# Refined Locally Preferred Alternative



# Miami Streetcar and Bay Link Compatibility

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- **Bay Link & Street Car project carefully coordinated**
  - Using same street car technology
  - Share the same alignment and station locations in downtown core area of overlap
  - Same traction power system for both
- **General Phasing**
  - Street car project will probably be built first (also Phase 1 of Bay Link)
  - Balance of Bay Link (Phase 2) built according to MPO's Metropolitan Plan
  - Future streetcar lines could be accommodated on core system



# Vehicle Type - Streetcar



Portland



# Vehicle Type - Streetcar



Tacoma

# Bay Link Streetcar





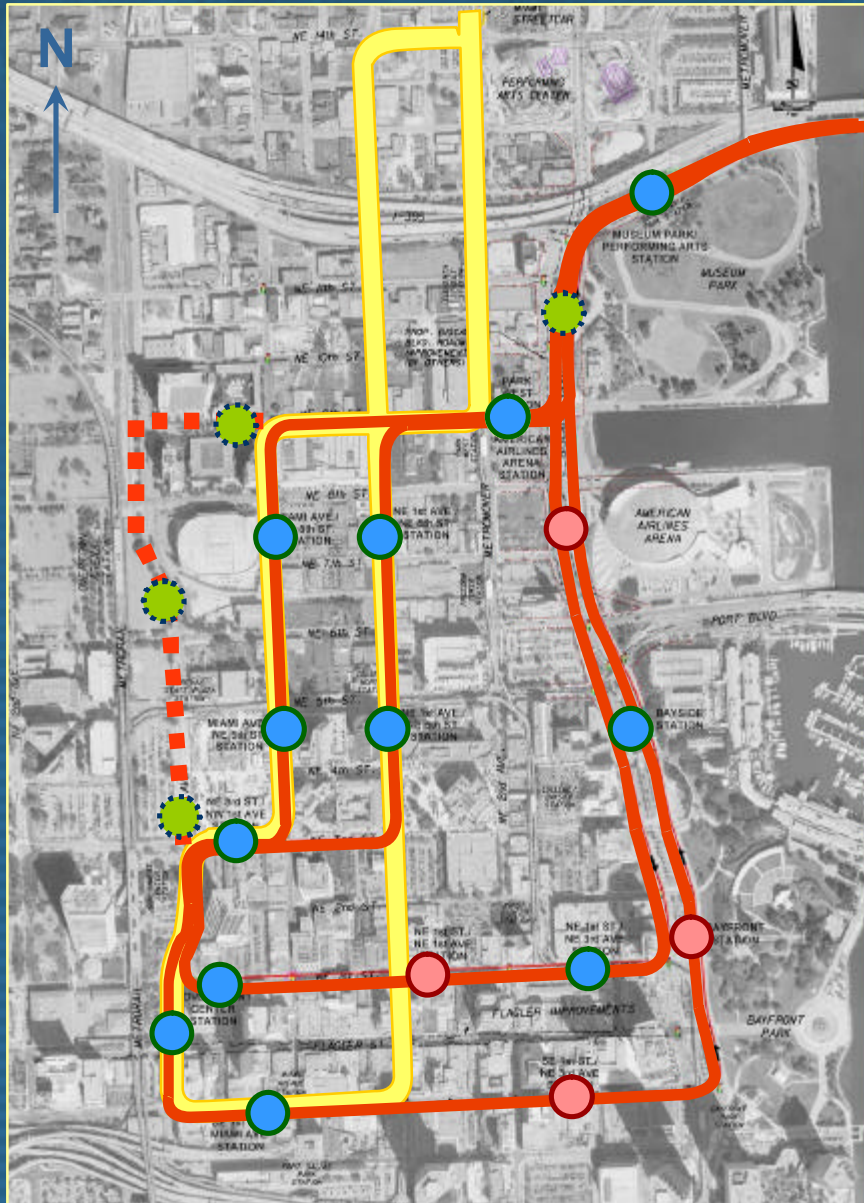
# Streetcar Vehicle Characteristics








CHARACTERISTICS	SKODA INEKON
Height (Without Pantograph)	11' - 4"
Length	67' – 102'
Width	8' - 1"
Cost Per Car	\$2.0M
Floor Height	14"
Weight (AWO)	27 tons
# of Articulations	2
Low Floor	40%
Operating/Max Speed	31 MPH / 45 MPH
Passenger Capacity	41 Seated; 154 total



# Miami Alignment & Station Locations



## Legend:




-  Bay Link Alignment
-  Miami Streetcar Alignment
-  Regional Station
-  Transfer Stations
-  Potential Stations



# Macarthur Causeway Segment



## Legend

-  Regional Station
-  Transfer Station
-  Regional Connector



# City of Miami Beach



Stations

Stations

Track/Loop

Outbound Track/Loop

Miami Streetcar

# Miami Beach Alignment & Station Locations



## Legend:

- Regional Connector
- Local Circulator
- Regional Station
- Circulator Station
- Transfer Station



# Operating Plan

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## General Parameters

- Operate from 5:30 AM until 2:00 AM
- 20.5 hours service daily
- Operates on 5-minute headways during peaks
- Revenue Vehicles
  - 11 to operate Regional Service
  - 7 to operate Circulator Service

## Selected Run Times

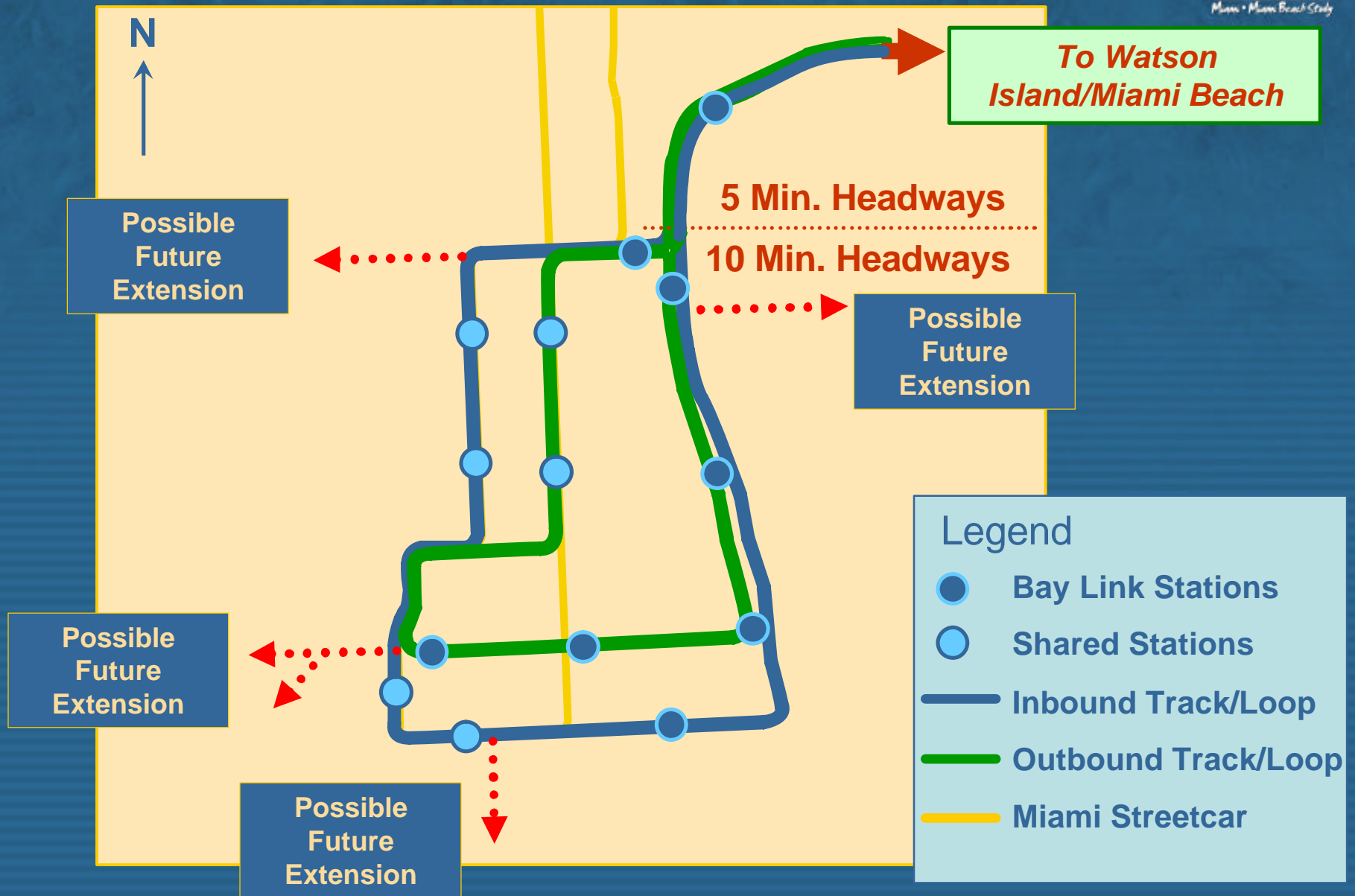
- Government Ctr. to Convention Ctr. > 27 min
- Government Ctr. to 5<sup>th</sup> St/Alton Rd. > 12 min
- Washington Ave/Lincoln Rd. to South Pointe > 7 min
- Alton Rd/16<sup>th</sup> St to AA Arena > 16 min



# Miami Operations



# Possible Future Extensions



# Miami Beach Operations



Possible Future Extension



## Legend:

- Regional Connector
- Local Circulator
- Regional Station
- Circulator Station
- Transfer Station

5 Min. Headways During Peak

26 Stations

To Watson  
Island/  
Downtown  
Miami



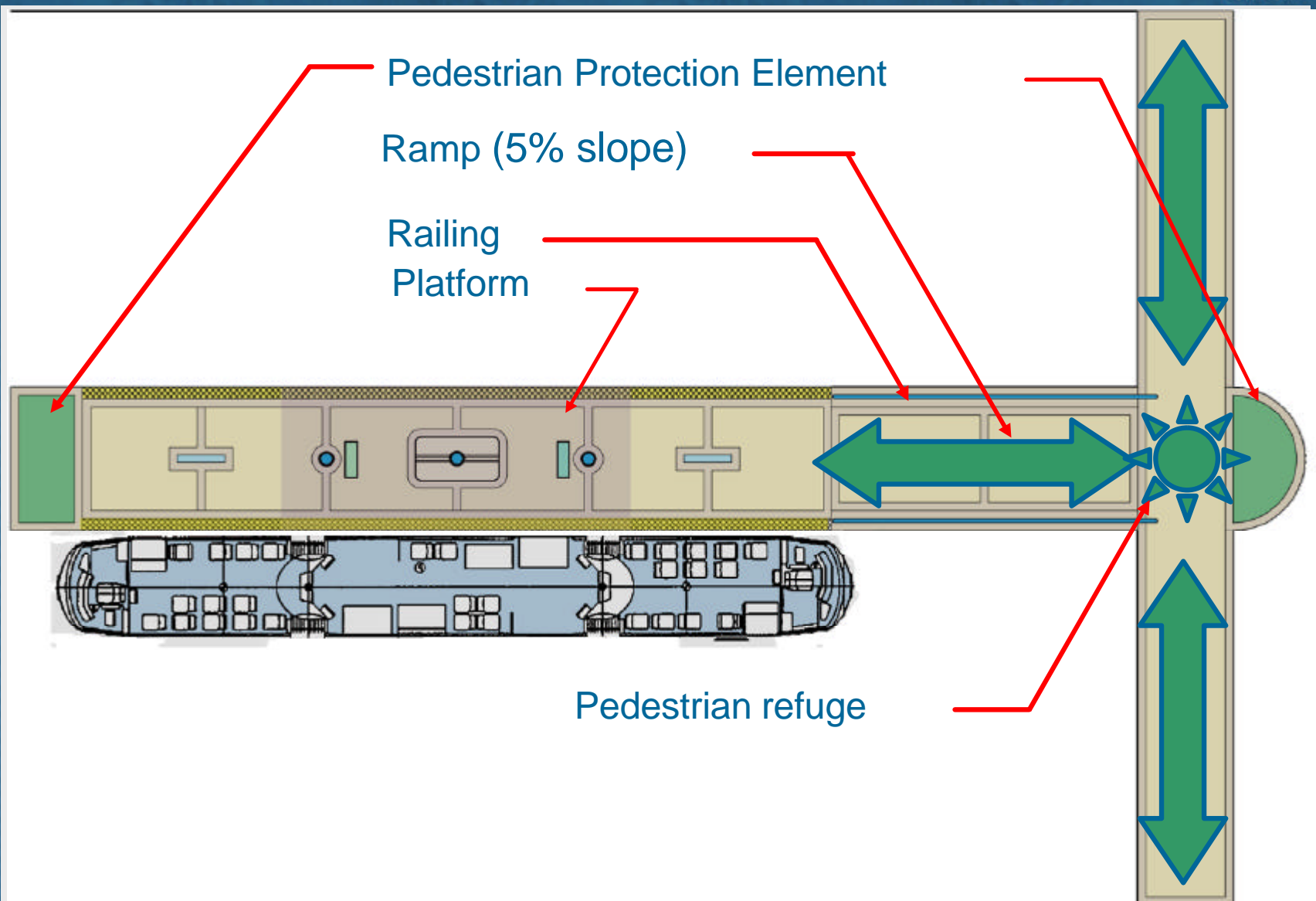
# Train Arriving Station

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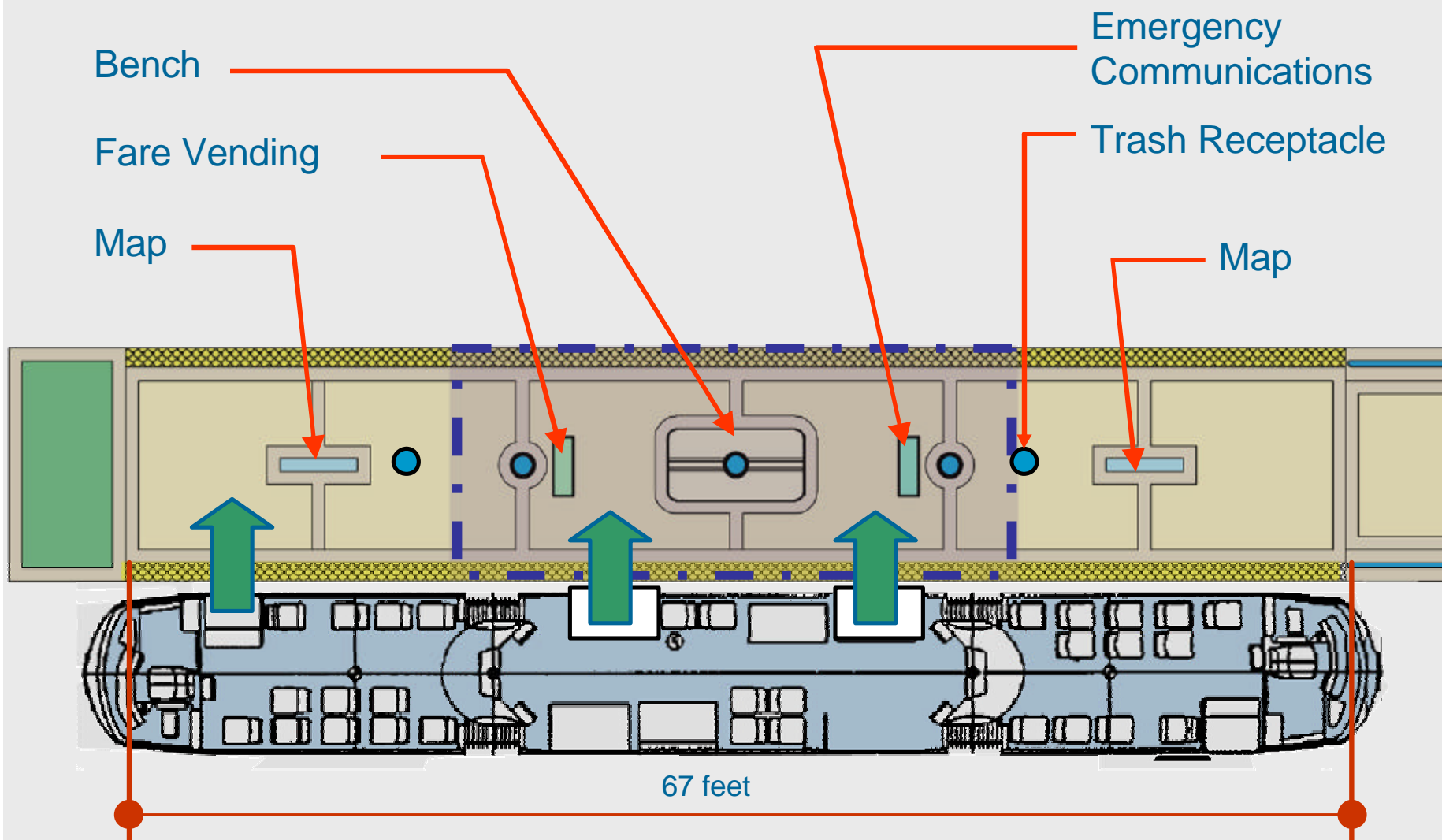
# Design Parameters

## *Pedestrian Access*



# Design Parameters

## *Station Elements*

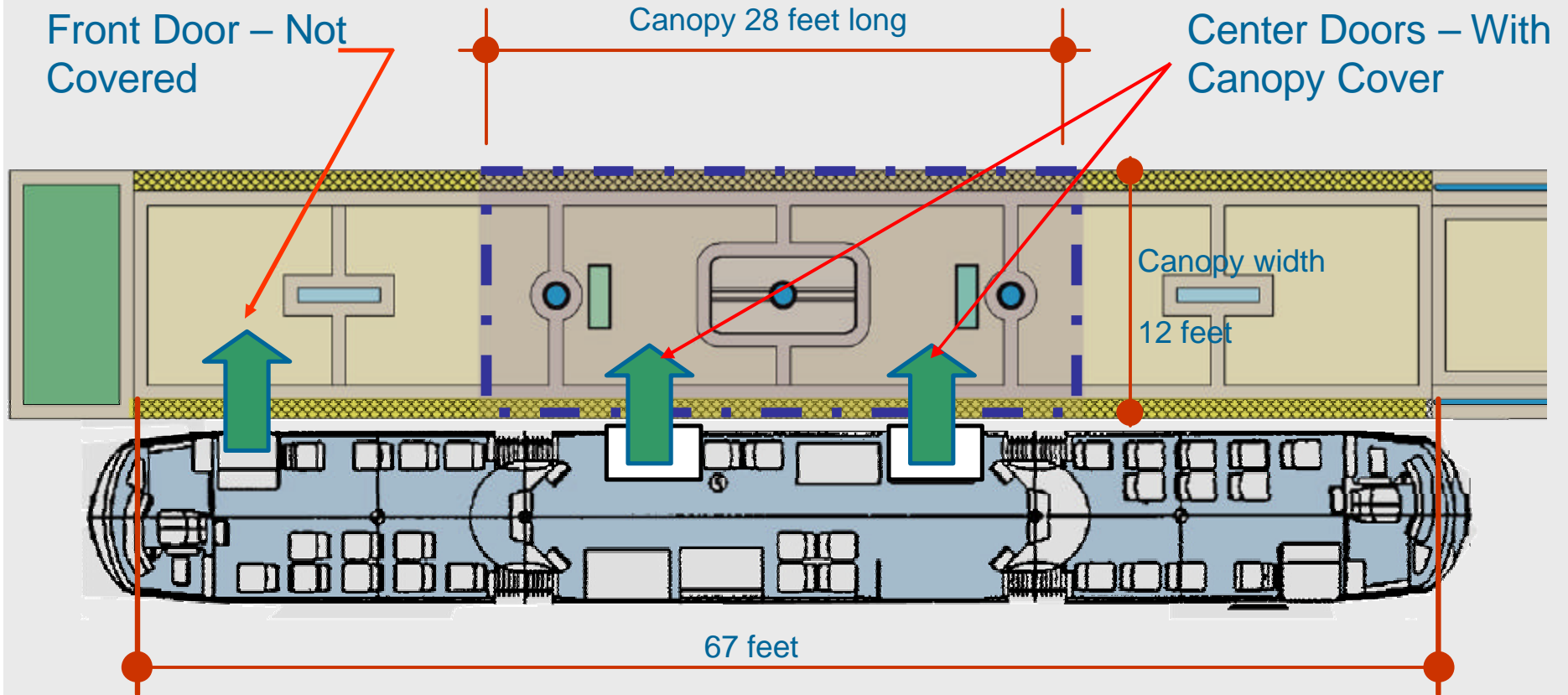


Build for single car; design for 2 cars

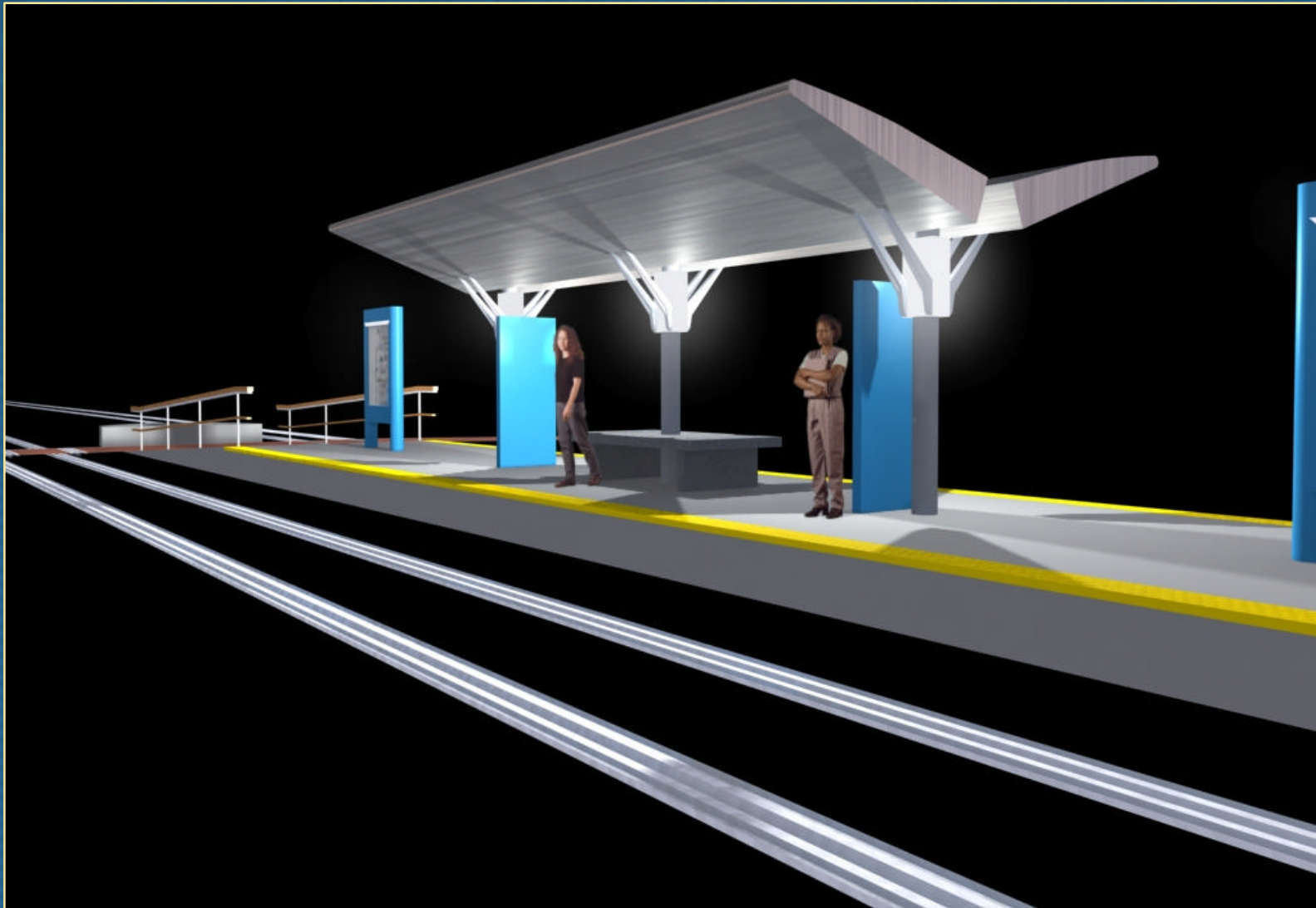


# Design Parameters

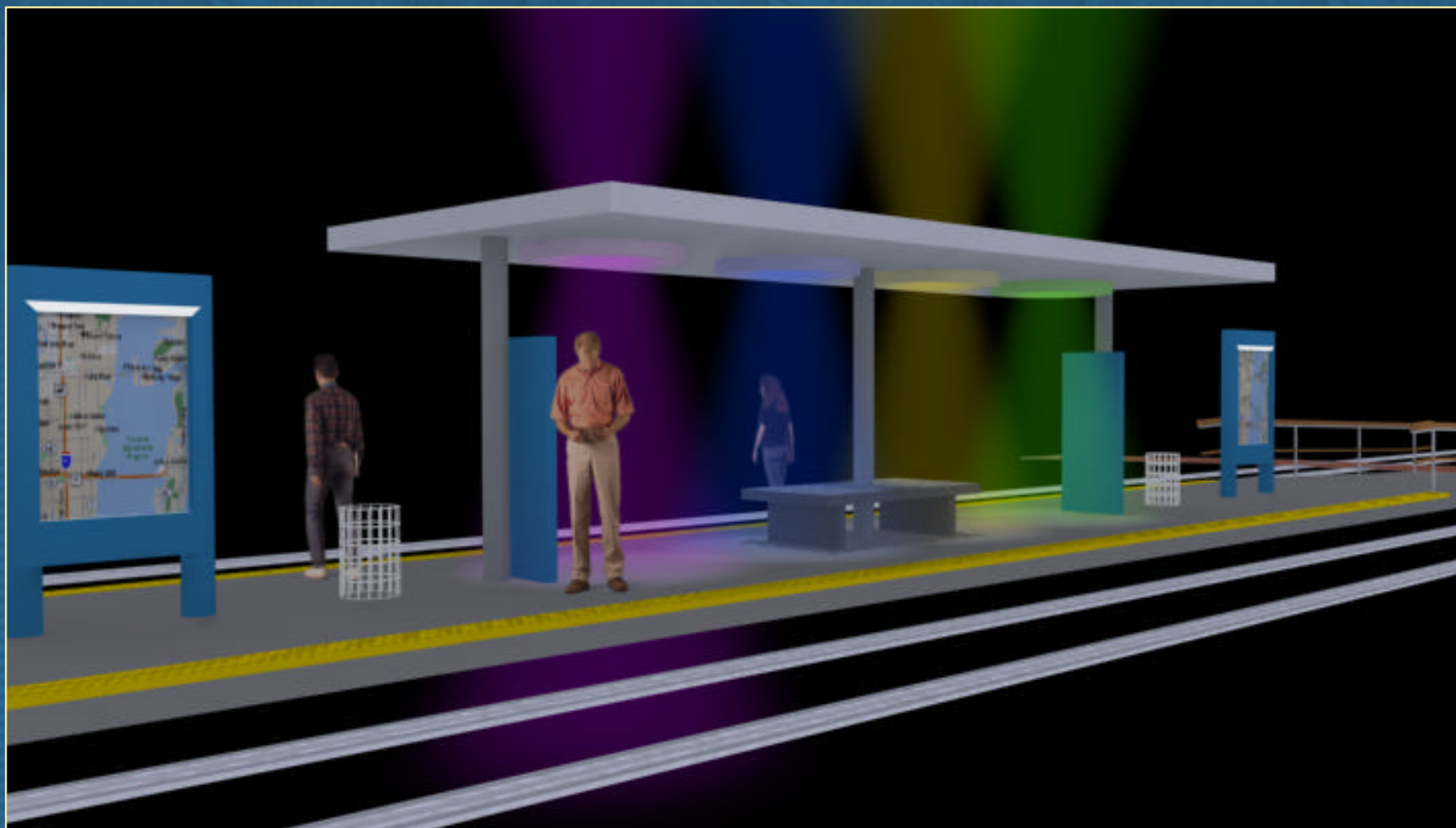
## *Platform Canopy*



# Design Option 1

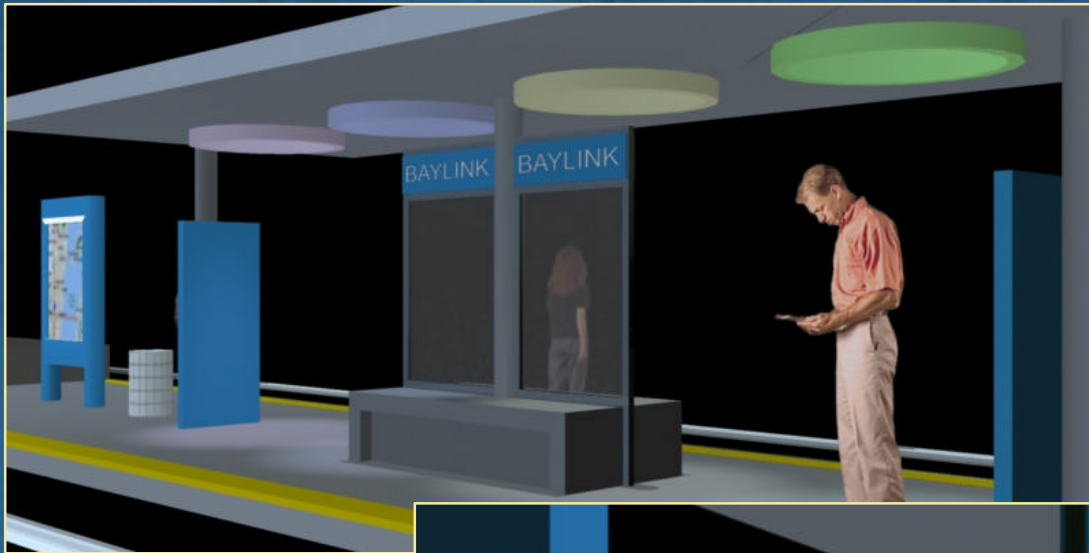


# Design Option 2

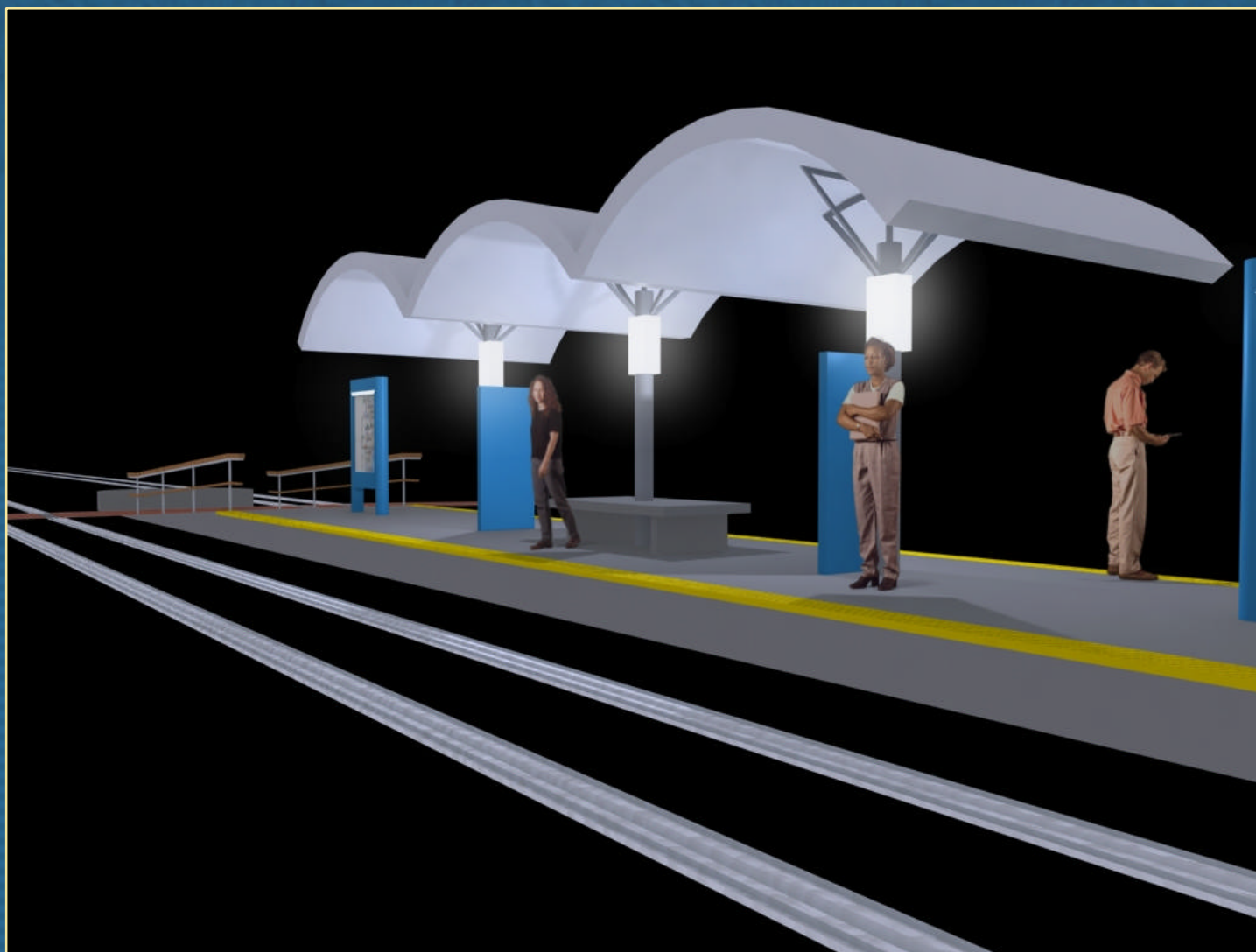




# Design Option 2

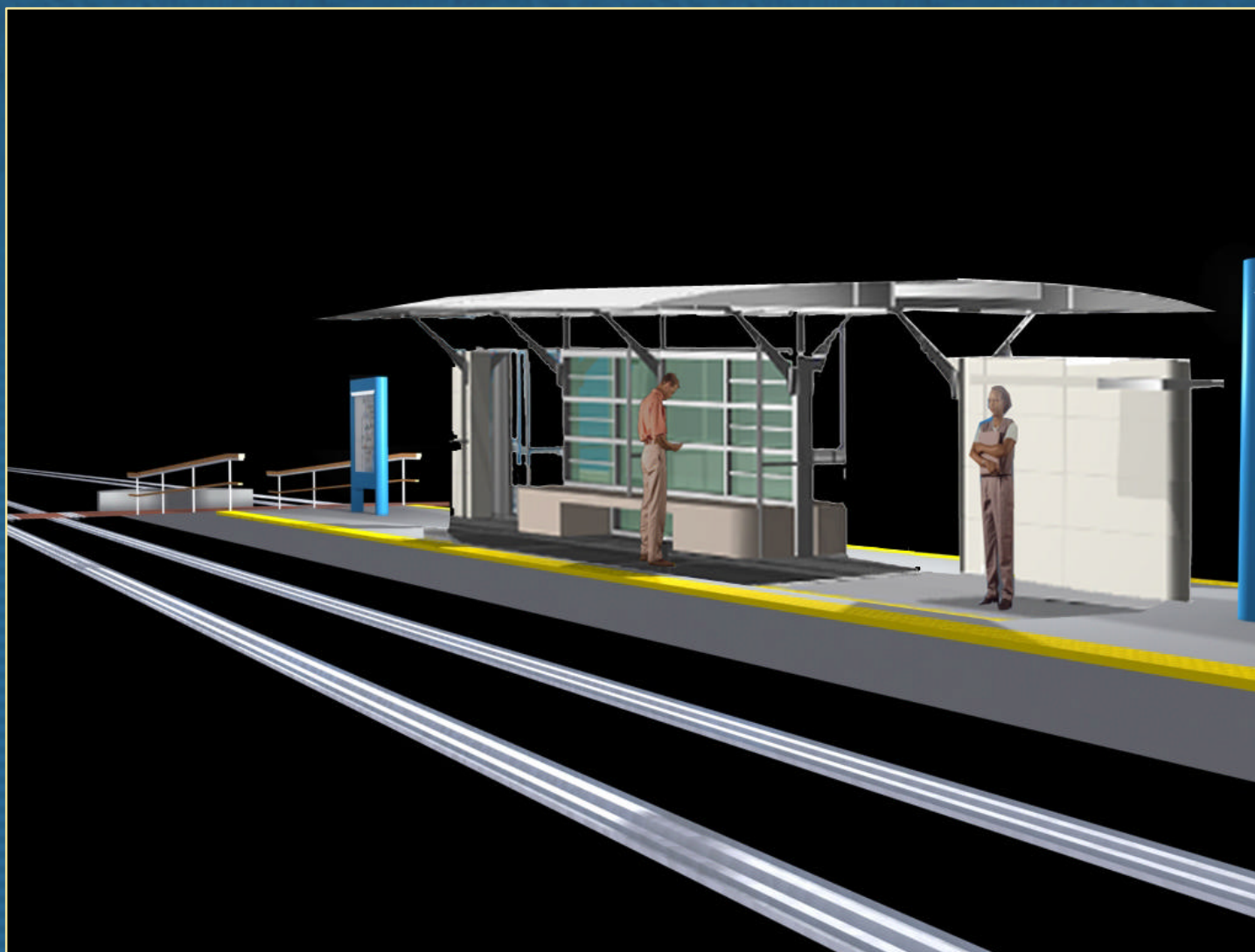


# Design Option 3





# Design Option 4



# Design Option 4





# Miami Station Prototype



*Government Center Station*



# Miami Station Prototype



*Government Center Station Single Platform*



# Miami Station Prototype



*Government Center Station Double Platform*

# City of Miami



Stations  
Stations  
Track/Loop  
and Track/Loop  
Miami Streetcar



# Bayfront Station



# Bayfront Station

Bay Link



Miami • Miami Beach Study



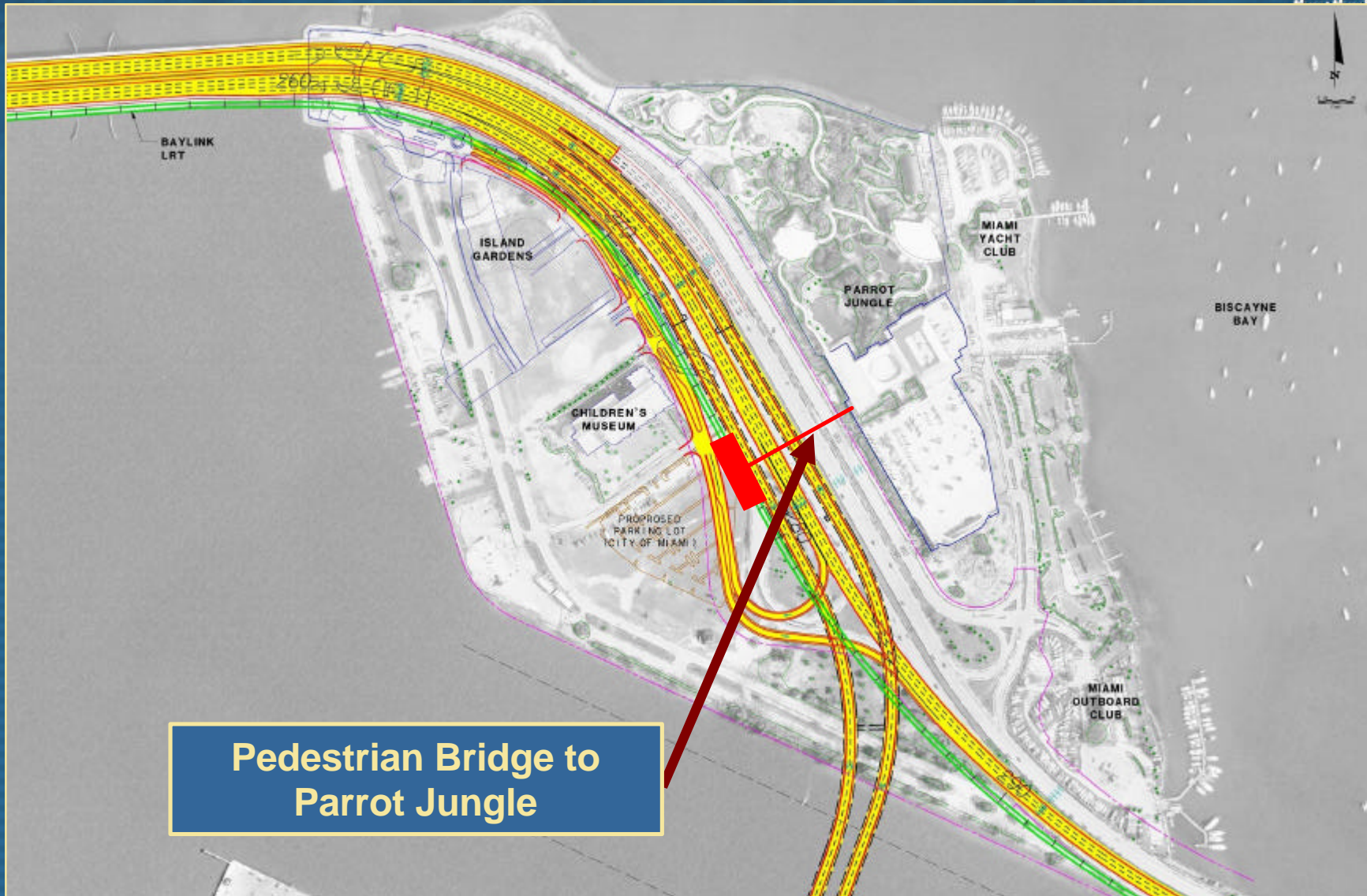


# Watson Island Station

Bay Link



Bay Link Beach Study



**Pedestrian Bridge to  
Parrot Jungle**



# Elevated Station Prototype



*Watson Island Station*

# Miami Beach Station Prototype



*Alton Rd. & 2<sup>nd</sup> Street Station*



# Miami Beach Station Prototype



*Alton Rd. & 2<sup>nd</sup> Street Station*



# Washington Ave. & Lincoln Rd. Station





# Alton Rd. & 16<sup>th</sup> Street Station



# Capital Cost Summary



**In Millions of 2004 Dollars**

	Refined LPA	DEIS LPA
1.0 Guideway	\$135.52	\$121.30
2.0 Yard & Shop	\$26.57	\$22.10
3.0 System Elements	\$70.22	\$50.80
4.0 Passenger Stations	\$35.97	\$34.40
5.0 Special Conditions	\$42.43	\$43.90
6.0 Vehicles	\$43.22	\$37.00
7.0 Right-of-Way	\$10.63	\$5.70
8.0 Soft Costs	\$123.17	\$114.50
Total Cost	\$487.73	\$429.70
Increase	+\$58.03	



# Statistical Comparison



CATEGORY	DEIS LPA	REFINED LPA
Route Length (Miles)	10.4	18.04
No. of Stations	25	42
No. of Vehicles	16 LRVs	21 Streetcars
Daily Ridership	15,483	19,677 (1)
Annual Ridership	4.8 M	6.1 M
Annual O&M Cost (Millions 2004 \$)	\$10.5	\$12.1 (1)
Capital Cost (Millions 2004 \$)	\$429.7	\$ 487.7

(1) Subject to review of draft estimates.

# Statistical Differences



CATEGORY	DEIS LPA	REFINED LPA	DIFFERENCES
Annual Ridership (Millions)	4.8	6.1	1.3 (27.1%)
Annual O&M Costs (Millions 2004 \$)	\$10.5	\$12.1	\$1.6 (15.2%)
Capital Cost (Millions 2004 \$)	\$429.7	\$ 487.7	\$58.03 (13.5%)



# Financial Plan



- Bay Link is part of People's Transportation Plan (PTP)/Included in LRTP.
- Pro-Forma Assumptions

Capital Cost	O&M Costs
50% Federal (5309)	35% Fare Box
25% State (FDOT)	65% PTP
25% Local (PTP)	

- Carefully Coordinated with Miami Streetcar Project
  - Potential for sharing cost
  - Preserving Federal Options
  - Take Advantage of creative alternatives

# Next Steps

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- **Submit PE/FEIS Request to FTA  
(8/12/04)**
- **FTA Ranks Project, Authorizes PE/FEIS  
(9/30/04)**
- **MPO Reassesses Bay Link's Regional Priority  
(11/19/04)**
- **MDT Selects Consultant / Starts PE/FEIS  
(1/14/05)**



# Thank You

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## Questions & Concerns